

Smith River Left-Turn Channelization Safety Project

U.S. Route 101 in Del Norte County from north of Indian Road intersection to Ocean View Drive

01-DN-101-KP 70.2-73.9 (43.6 - 45.9)

01-345400

Initial Study

Submitted Pursuant to: (State) Division 13, California Public Resources Code

**Prepared by the
State of California Department of Transportation**

June 2005



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Del Norte County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, potential impacts from each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

What should you do?

Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at:

Caltrans District 1 Eureka Office
1656 Union Street
Eureka, CA 95501

Del Norte County Library
190 Price Mall Circle
Crescent City, CA 95531

Del Norte County Planning Office
981 H Street, Suite 110
Crescent City, CA 95531

Del Norte County Library
241 First Street
Smith River, CA 95531

Website: <http://www.dot.ca.gov/dist1/d1projects/envdocs.htm>

We welcome your comments. If you have any concerns regarding the proposed project, please attend the public information meeting on Thursday July 21, 2005 from 4:00 to 7:00 p.m. at the Smith River Community Hall, 241 First Street, Smith River, CA 95567, or send your written comments to Caltrans by the deadline provided below. Submit comments via U.S. mail at the following address:

Japtej Gill, Environmental Chief
Branch S-4
California Department of Transportation
2389 Gateway Oaks, Suite 100, MS 15
Sacramento, CA 95833

Submit comments via email to: japtej_gill@dot.ca.gov.

- Submit comments by the deadline: 8/5/05.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) undertake additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Gregoria Ponce Garcia, Office of Environmental Management S-174, 2389 Gateway Oaks, Sacramento, CA 95833; 916.274.0565 Voice, or use the California Relay Service TTY number, 1.800.735.2929.

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[PM 43.6-45.9]
EA 01-345400

Smith River Left-Turn Channelization Safety Project

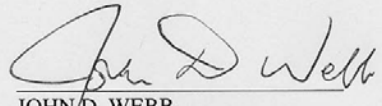
Improve the safety and operations on U.S. Route 101 in Del Norte County from north of Indian Road intersection (PM 43.6) to Ocean View Drive (PM 45.9).

INITIAL STUDY

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

30 June 2005
Date of Approval


JOHN/D. WEBB
Office Chief, Sacramento
North Region Environmental Services
California Department of Transportation

Proposed Mitigated Negative Declaration
Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to construct left- turn lanes and shoulder widening from Post Mile (PM) 43.6 to Post Mile (PM) 45.9 on U.S. Route 101 in Del Norte County. Continuous two-way left-turn lane and shoulder widening is planned from PM 43.6 to PM 45.3. Shoulder widening will continue from PM 45.3 to PM 45.9, and the addition of a left-turn pocket is currently under consideration at Gilbert Way (PM 45.6). Through lanes will be 3.6 meters wide (12 feet), left-turn lane will be 4.2 meters wide (14 feet), and shoulders will be 2.4 meters wide (8 feet). Approximately 5.26 acres of additional right-of-way is required affecting 32 parcels.

Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have no effect on air, noise, or energy resources due to incorporating air quality and noise control measures and adhering to local ordinances and regulations.
- The proposed project would have no effect on geologic, topographic, scenic, visual, or landscape resources as all work is identified in non-geologically active areas, cut/fills will be contoured where feasible for blending into surroundings, and disturbed areas revegetated, where feasible.
- The proposed project would have no effect on coastal, agricultural, hydrology, floodplain, or community resources due to minimizing project footprint, minimal take of agricultural lands, no effect on coastal views, access, or natural landforms, implementing a traffic management plan, and no floodplain encroachment.

The proposed project would have no significantly adverse effect on biological resources or water quality because the following mitigation measures would reduce potential effects to less than significant:

- Mitigate wetlands at 1.5:1 ratio onsite and 2:1 offsite and affected stream vegetation onsite at 3:1.
- Establish environmentally sensitive areas marking No Entry for all sensitive resources adjacent to the construction area and execute and monitor revegetation plan for Siskiyou Checkerbloom.
- Minimization of project footprint, work during no or low flows in wetlands and implement erosion control measures and upgrade drainage facilities

John Webb
Office Chief
North Region Environmental Services
California Department of Transportation

Date

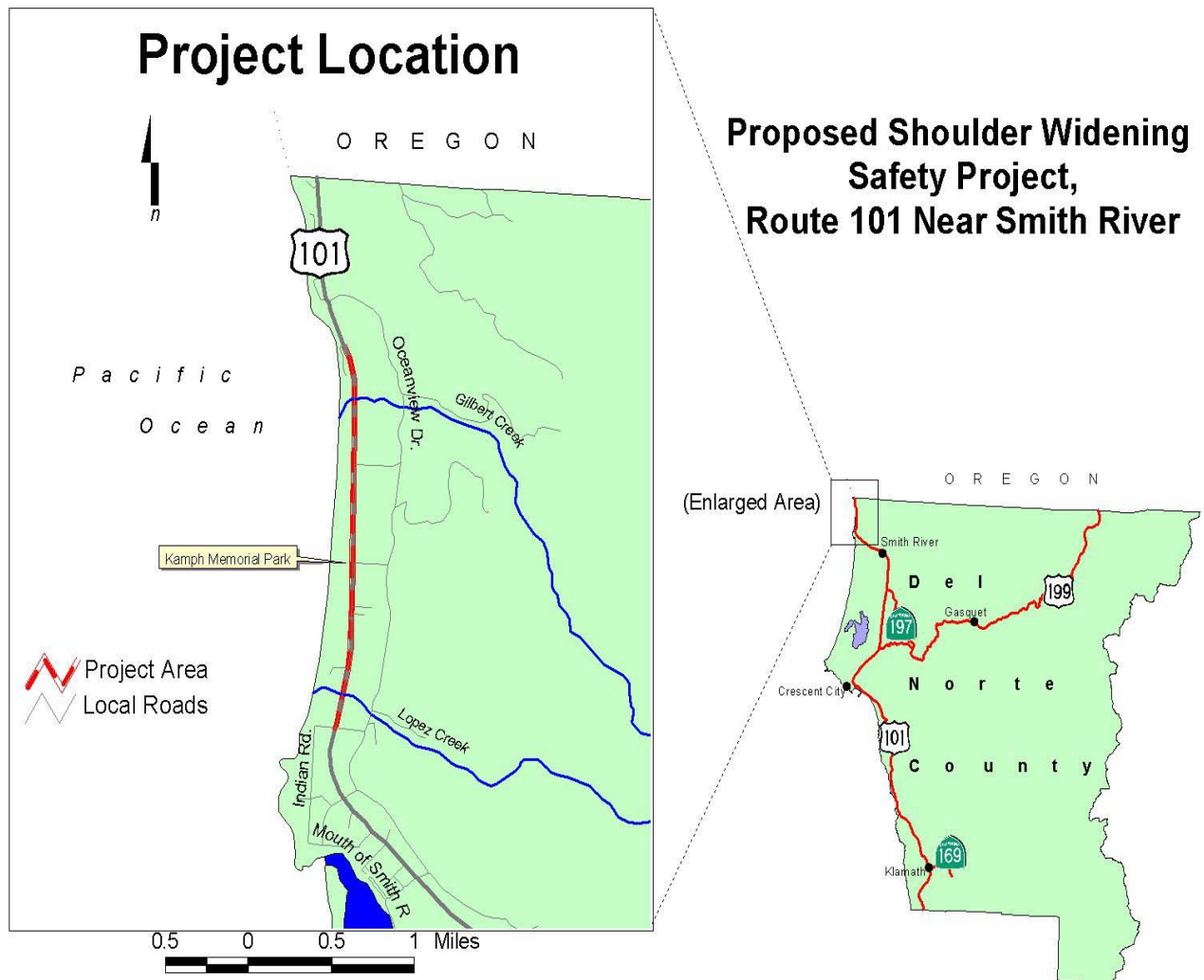
Summary

The California Department of Transportation (Caltrans) proposes to construct left-turn lanes and shoulder widening. This project, identified as the Smith River Left-Turn Channelization Safety Project (Project) begins at Post Mile (PM) 43.6 to Post Mile (PM) 45.9 on U.S. Route 101 in Del Norte County. A continuous two-way left-turn lane and shoulder widening is planned from PM 43.5 to PM 45.3. Shoulder widening will continue from PM 45.3 to PM 45.9 and the addition of a left-turn pocket is currently under consideration at Gilbert Way (PM 45.6). Through-lanes will be 3.6 meters (12 feet) wide, left-turn lane will be 4.2 meters (14 feet) wide, and shoulders will be 2.4 meters (8 feet) wide. Culverts will be extended or replaced as necessary. Additional right-of-way (RW) will be required and existing driveways will be perpetuated. Various utilities will be relocated. Designated staging areas and temporary construction easements are necessary and will occur within the project boundaries (Appendix D). A disposal site is also needed for approximately 15,500 cubic meters (m³) [20,274 cubic yards (yd³)] of excess material. Additionally, a traffic management plan will be implemented to address local and highway circulation during construction.

The proposed project will require a County Local Coastal permit, Section 1602 Streambed Alteration Agreement with the Department of Fish and Game (DFG), a Section 404 Nationwide permit from the U.S. Army Corps of Engineers (ACOE), and a Water Quality Certification (401 permit) from the North Coast Regional Water Quality Control Boards (NCRWQCB). As more than one acre of soil will be disturbed, compliance with the National Pollutant Discharge Elimination System (NPDES) permit and subsequently a Storm Water Pollution Prevention Plan (SWPPP) will also be required. The proposed overall project will require 2.13 hectares (ha) (5.26 acres [ac]) of new right-of-way (R/W) consisting of purchase or easements, along the highway from private landowners. (Appendix D).

Caltrans evaluated three alternatives that included widening to the west, east, or at about centerline. Through the project development process, one variation arose that avoided public resources and minimized biological impacts. Impacts to threatened, endangered or rare species shall be minimized or eliminated through use of environmentally sensitive areas (ESA), replanting strategies as well as construction windows. Permanent impacts to wetlands will be mitigated at a ratio of 1.5:1 via wetlands creation within or near the project. Offsite mitigation will be at a 2:1 ratio at an approved site. Temporary impacts to wetlands will be minimized by establishing ESA identifying non-entry for the remaining portion of any wetlands and restoring work areas upon completion of the project. Additional wetland mitigation/avoidance requirements may be provided by resource agencies during the permitting process.

Project Location



Summary of Environmental Consequences from Alternatives

Potential Impact		Project Alternative	No-Build Alternative
Land Use	Consistency with the Del Norte County General Plan	All work on main line is consistent with the Del Norte General Plan. The final selected disposal site will also be selected on conformity.	No
Coastal Zone		Surface and sub-surface disturbance within Coastal Zone under Local Coastal Program (LCP). All work on main line is consistent with the Del Norte General Plan. An LCP permit will be required.	No Impacts
Parks and Recreation		Kampf Memorial Park, a public resource, will not be affected. Access will be maintained during construction. Long-term impact is improved ingress/egress. No cumulative impacts identified.	No Impacts
Growth		Project does not promote growth. Proposed work increases safety for existing movements along mainline. Long-term impact is reduced number of accidents. No cumulative impacts identified.	No Impacts
Farmlands/Timberlands		There is minor conversion of prime farmland to non-agricultural consisting of strip takes within the project limits. No timberlands will be affected. Per FFPA and NRCS guidelines the amount of converted farmland is less than significant. No indirect conversion of farmland or change of land use in the area is expected. The pattern of development will not be impacted. No inaccessible remainders of parcels will result.	No farmland will be acquired
Community Character and Cohesion		Affects 32 parcels consisting of strip takes on both sides and 1 full property acquisition on west side of frontage of U.S. 101 within the project limits. Approximately 5.26 acres of new Right of Way (R/W) is needed to achieve the proposed project.	No Impacts
Relocation	Business displacements	No businesses will be displaced.	No Impacts
	Housing displacements	No houses will be displaced.	No displacements. No ingress/egress improvements will be made.
	Utility service relocation	GTE, Pacific Power & Light Co., Falcon Cable TV, and Smith River Community Services Water District within the project footprint will undergo utility relocation.	No relocation of utilities.
Environmental Justice		No high or adverse impacts to minority or low-income populations.	No Impacts
Utilities/Emergency Services		Existing electrical lines, telephone lines, and water lines will be relocated. Existing drainage ditches will be replaced. Traffic controls during construction with priority given to emergency services. Project will be constructed to have minimal impacts on the public's access to local public service facilities. Long-term impacts include improved access to emergency and public services. No cumulative impacts identified.	No relocation of utilities. No improved access.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		During construction hours, all traffic (motorized and non-motorized) will be limited to movement under the proposed traffic management plan. The long-term impact is that the widened roadway will accommodate existing bike and pedestrian traffic. No cumulative impacts identified.	No temporary traffic control measures or widening.
Visual/Aesthetics		All slope work will be done to contour to existing ground, where feasible. No substantial adverse impacts to scenic vistas or resources. No long-term or cumulative impacts identified.	No Impacts
Cultural Resources		No cultural resources identified in project area.	No impacts
Hydrology and Floodplain		No encroachment into 100-year floodplain. Permanent impacts to flows at Lopez Creek are no increased backwater effects from increased culvert capacity at that location than currently exists. The project does not constitute a significant encroachment as defined in 23 CFR 650.105. No long-term or cumulative impacts identified.	No Impacts

Water Quality and Stormwater Runoff	No <i>new</i> water, wastewater, or storm water facilities will be constructed or existing system expanded that will cause significant environmental effects. Exposed soils during construction will be addressed through erosion control measures. All drainage work will conform to water pollution control measures.	No changes or improvements to drainages.
Geology/Soils/Seismic/ Topography	Does not expose people or structures to potential substantial adverse effects from rupture of known earthquake faults, strong seismic ground shaking, seismic-related ground failure, or landslides. There are no known mineral resources affected by the project. 15,500 cubic meters of soil will need disposal.	No Impacts
Hazardous Waste/Materials	No hazardous waste or materials are expected on this project. Any encountered during construction will be disposed of according to all Federal, State and Local laws. No long-term or cumulative impacts identified.	No Impacts
Air Quality	During construction, the proposed project will generate air pollutants that would vary each day as construction progresses and will be minimized through air pollution and dust control measures in addition to compliance with County and Air Quality Management District ordinances. No long-term or cumulative impacts identified.	No temporary impacts
Noise and Vibration	Noise generated during construction will be minimized through Department sound control measures that direct all work to comply with all local sound control and noise level rules, regulations and ordinances. No long-term or cumulative impacts identified.	None
Natural Communities	No fragmentation or lower functions or values of perennial grasslands, namely coastal prairies, riverine environments, and coastal bluff terrace/saltspray meadows adjacent to the area will result from this project.	No Impacts
Wetlands and other Waters	Several ditches exhibiting seasonal, freshwater wetland characteristics will be impacted. On-site mitigation will be at a 1.5:1 ratio. Any additional mitigation that cannot be recreated onsite will be mitigated at a 2:1 ratio at an approved location. All streams with bed and bank work will be restored to their prior condition or better with vegetation removal replaced at a 3:1 ratio. Orange barrier fencing will be installed to protect adjacent resources in project area.	No impacts to wetlands.
Plant Species	Dog violet (host plant to threatened species) and Siskiyou checkerbloom (rare plant) are adjacent to highway in and outside of R/W. Minimal impacts to checkerbloom due to proposed alignment, implementing mowing program, and transplanting existing topsoil in new R/W in conjunction with seed dispersal. Orange barrier fencing will be installed to protect adjacent resources in project area.	No construction-related impacts to plants.
Animal Species	6-10 plants that support Oregon silverspot butterfly (threatened species) impacted; Suitable reproductive habitat will be avoided and protected with orange barrier fencing. Anadromous fish in Lopez Creek will be protected during fish passage enhancement work via work windows and non-harming diversion methods.	6-10 plants not impacted. No fish passage enhancement.
Construction	Temporary construction impacts of noise, dust, delayed traffic, and erosion at drainages. Best management practices for controlling air, noise, and traffic management will be employed. Erosion control measures at drainages will be employed. Access to side streets will be maintained.	No temporary construction impacts.

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List of Abbreviated Terms

AC	Asphalt Concrete
ac	Acres
ACOE	U.S. Army Corps of Engineers
APE	Area of Potential Effect
AQMD	Air Quality Management District
BMP	Best Management Practices
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CZW	Coastal Zone Waters
CZMA	Coastal Zone Management Act
CNPS	California Native Plant Society
DBH	Diameter At Breast Height
Department	California Department of Transportation
DFG	California Department of Fish and Game
DOT	Department of Transportation
EA	Expenditure Authorization
EP	Edge of pavement
ESA	Environmentally Sensitive Areas
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ft	foot/feet
ha	hectares
ISA	Initial Site Assessment
km	kilometer(s)
KP	kilometer post
m	meter(s)
m ³	cubic meter
mi	mile(s)
NCRWQCB	North Coast Regional Water Quality Control Board
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSB	Oregon Silverspot Butterfly
PM	post mile
RTP	Regional Transportation Plan
R/W	Right of Way
RSP	Rock Slop Protection
RWQCB	Regional Water Quality Control Board
SHOPP	State Highway Operation and Protection Plan
STAA	Surface Transportation Assistance Act of 1982
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
TMP	Traffic Management Plan
TWLT	Two-way left turn lane
U.S.G.S.	United States Geological Survey
U.S. 101	U.S. Route 101
WPCP	Water Pollution Control Program

Chapter 1 **Proposed Project**

Introduction

The California Department of Transportation (Caltrans) proposes to improve the safety on U.S. Route 101 in Del Norte County from north of Indian Road intersection (PM 43.6) to Ocean View Drive (PM 45.9). The total length of the project is 3.8 kilometers (km) (2.3 miles [mi]). The existing roadway imposes driving restrictions for left-turn movements onto intersecting public roads and private driveways. Also the limited paved shoulders reduce the opportunity for errant motorists to recover.

This project is included in the 2002 Federal Statewide Transportation Improvement Program (FSTIP) for the 2006/2007 Fiscal Year (FY) and is proposed for funding from the State Highway Operation and Protection Plan (SHOPP). It is also included in the Del Norte County 2002 Regional Transportation Plan (RTP).

Purpose and Need

The existing facility is a 2-lane undivided conventional expressway with narrow to non-existent shoulders. U.S. Route 101 is known as the Redwood Highway and considered an economic lifeline of the north coast and an important route in the District. It is a principal arterial serving interregional and interstate traffic, with relatively high traffic volumes and heavy use by both truck and tourist traffic.

U.S. Route 101 is a major goods movement route serving the California North Coast. The Del Norte County Local Transportation Commission considers Route 199 as the route that contributes most to the economic well being of Del Norte County. U.S. Route 101 is used to transport food, lumber, and other essential supplies to communities along this corridor, and to transport goods to market. The Route also provides important east-west connections to Interstate 5 via Highways 20, 36, 197,

199, and 299. It is also of interregional and interstate significance and is designated as a High Emphasis Focus Route in the State Interregional Transportation Strategic Plan (ITSP).

1.1.1 Purpose

The purpose of this project is to provide safety improvements that will reduce the frequency and severity of collisions to at or below the Statewide average for similar facilities. The project as proposed is consistent with this goal and is also consistent with the Route 101 Concept Report as well as the Regional Transportation Plan. The project is also consistent with the Del Norte County's Transportation and Circulation Element of their General Plan (Goal 8.A).

1.1.2 Need

The need for this project is due to a concentration of collisions on this segment of highway. Predominant collision patterns are attributed to unprotected left turn maneuvers and to limited recovery area adjacent to the traveled way.

The proposed improvements include a continuous two-way left turn lane (TWLTL) and shoulder widening from PM 43.6 to PM 45.3. Shoulder widening will continue from PM 45.3 to PM 45.9 and the addition of a left-turn pocket is currently under consideration at Gilbert Way (PM 45.6). Through lanes will be 3.6-m (12 ft) wide, the left-turn lane will be 4.2-m (14 ft) wide and shoulders will be 2.4-m (8 ft) wide. Approximately 5.26 ac. of R/W affecting 32 parcels are needed and utilities will be affected. Figures 1 and 2 show project location and vicinity maps.

Accidents

The collision history for this stretch of U.S. Route 101 between 8/1994 through 7/1999 was compiled from traffic collision reports prepared by the California Highway Patrol (CHP). Collision statistics were obtained from the Traffic Accident Surveillance Analysis System (TASAS) reports prepared by Caltrans. The data

indicates during this period, there were 20 reported collisions, including three fatal and six injury collisions. This equates to a fatality rate that is nearly four times greater than the statewide fatality rate for similar highway facilities.

Seven of the 20 collisions for this period can be attributed to left-turn maneuvers. Eight can be attributed to loss of control on narrow shoulders. Five collisions are non-roadway related. The three fatal collisions involved loss of control during inclement weather (head-on), left-turn into Kamph Memorial Park entrance, and excess speed and loss of control north of Gilbert Creek Bridge. The proposed improvements will help to reduce the number and severity of collisions to at or below the Statewide average.

5-Year Collision Rate

08/01/1994 TO 07/31/1999					
Actual			Average		
Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
0.111	0.33	0.74	0.031	0.42	0.85
Rates are in collisions per 1,609,300 vehicle kilometers traveled					

Alternatives

The project is located in Del Norte County on U.S. Route 101 from north of Indian Road intersection (PM 43.6) to Ocean View Drive (PM 45.9). The total length of the project is 3.7 kilometers (km) (2.3 miles). Within the limits of the proposed project, the existing roadway is a 2-lane undivided conventional expressway with narrow to non-existent shoulders. The purpose of the project is to improve safety problems as a result of the driving restrictions for left-turn movements onto intersecting public roads and private driveways. Also the limited paved shoulders reduce the opportunity for errant motorists to recover. There are two alternatives under consideration, the Build Alternative and the No Build Alternative.

1.1.3 Build Alternative

This alternative proposes providing two 3.6-m (12-ft) travel lanes, 2.4-m (8-ft) outside shoulders, and a 4.2-m (14-ft) TWLTL from the beginning of the job at KP 70.2 to just south of the Gilbert Creek Bridge at KP 72.9. The TWLTL lane will be constructed to the east of the existing centerline with an additional shift of 1.8-m (6-ft) would occur from approximately 702-m (2,300-ft) south of the Kamph Park entrance to 397-m (1300 ft) north of the Kamph Park entrance, essentially moving the centerline 3.9-m (13 feet) to the east in this area. The existing crest vertical curve south of Gilbert Creek Bridge will be improved to meet design speed and stopping sight distance requirements.

The project proposes widening shoulders to 2.4-m from north of Gilbert Creek Bridge to conform to the existing 2.4-m shoulders near the end of the project. It is not proposed to construct TWLTL north of Gilbert Creek. The scope does, however, include a left-turn pocket for the intersection of U.S. Route 101 and Gilbert Way, a county road north of Gilbert Creek Bridge. The project includes drainage improvements consisting of culvert extensions and replacements, and construction of drainage channels parallel to the highway. It is currently estimated this alternative would require 2.13 ha (5.26 ac) affecting approximately 32 properties consisting of strip takes on both sides of the existing highway and one full take of non-agricultural land along U.S. Route 101.

Optional staging and storage will occur within the R/W as well as easements outside the R/W and utilities will be affected. The current cost estimate for this alternative is approximately \$7,700,000, including R/W. Additionally, a disposal site is sought for disposal of approximately 15,000 m³ (20,274 yd³) of soil.

This alternative would minimize impacts to existing Siskiyou checkerbloom (*sidalcea malvaeflora ssp. patula*), eliminate or minimize impacts to existing dog violet (*viola adunca*), and avoid encroachment to Kampf Memorial Park.

1.1.4 No-Build Alternative

The “No Build” alternative consists of not undertaking any improvements listed under the “Build” alternative. Routine and necessary maintenance will continue on U.S. Route 101, however, construction of safety and operational improvements would not occur. This alternative would not meet the basic purpose to improve safety by reducing collisions.

1.1.5 Alternatives Considered and Withdrawn

Three alternatives were dropped from further consideration in the project development process due to sensitive environmental resources, and take and/or encroachment on a public facility. The only variable between the alternatives is the alignment south of Gilbert Creek Bridge where the Two Way Left Turn Lane (TWLTL) is to be constructed. They are as follows:

A. – Widen Right

This alternative proposes providing two 3.6-m travel lanes, 2.4-m outside shoulders, and a 4.2-m two-way left-turn lane (TWLTL) from the beginning of the job to just south of the Gilbert Creek Bridge. The TWLTL will be constructed to the east of the existing centerline. The existing crest vertical curve south of Gilbert Creek Bridge will be improved to meet design speed and stopping site distance requirements. The project proposes widening shoulders to 2.4-m from north of Gilbert Creek Bridge to conform with the existing 2.4-m shoulders near the end of the project. It is not proposed to construct TWLTL north of Gilbert Creek. The scope does, however, include a left turn pocket for the intersection of U.S. Route 101 and Gilbert Way, a county road north of Gilbert Creek Bridge. The project includes drainage improvements consisting of culvert extensions and replacements, and construction of drainage channels parallel to the highway.

This alternative was rejected due to potential impacts to existing Siskiyou checkerbloom (*sidalcea malvaeflora ssp. patula*) and dog violet (*viola adunca*), host plant for a federally threatened Oregon silverspot butterfly.

B – Widen Left

This alternative proposes providing two 3.6-m travel lanes, 2.4-m outside shoulders, and a 4.2-m TWLTL from the beginning of the job to just south of the Gilbert Creek Bridge. The TWLTL will be constructed to the west of the existing centerline. The existing crest vertical curve south of Gilbert Creek Bridge will be improved to meet design speed and stopping site distance requirements. The project proposes widening shoulders to 2.4-m from north of Gilbert Creek Bridge to conform with the existing 2.4-m shoulders near the end of the project. It is not proposed to construct TWLTL north of Gilbert Creek. The scope does, however, include a left turn pocket for the intersection of U.S. Route 101 and Gilbert Way, a county road north of Gilbert Creek Bridge. The project includes drainage improvements consisting of culvert extensions and replacements, and construction of drainage channels parallel to the highway.

This alternative was rejected because widening to the west would require R/W acquisition of a portion of Kamph Memorial Park, which is prohibited by Federal requirements Section [4(f)], if another feasible alternative exists. Section [4(f)] specifically declares “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl, and historic sites.” See Appendix B for additional discussion.

C – Widen Both Sides

This alternative proposes providing two 3.6-m travel lanes, 2.4-m outside shoulders, and a 4.2-m TWLTL from the beginning of the job to just south of the Gilbert Creek Bridge. The TWLTL will be constructed centered on the existing centerline. The existing crest vertical curve south of Gilbert Creek Bridge will be improved to meet design speed and stopping site distance requirements. The project proposes widening shoulders to 2.4 meters from north of Gilbert Creek Bridge to conform with the existing 2.4 meter shoulders near the end of the project. It is not proposed to construct TWLTL north of Gilbert Creek. The scope does, however, include a left turn pocket for the intersection of Route 101 and Gilbert Way, a county road north of Gilbert Creek Bridge. The project includes drainage improvements consisting of culvert extensions and replacements, and construction of drainage channels parallel to the highway.

This alternative was also rejected due potential impacts to existing Siskiyou checkerbloom (*sidalcea malvaeflora ssp. patula*) and dog violet (*viola adunca*) host plant for a federally threatened Oregon silverspot butterfly. This alternative may encroach upon Kampf Memorial Park.

Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Informal Section 7 Consultation for Oregon Silverspot Butterfly due to the effects on the Dog Violet, the host plant within the project area.	Informal consultation on Oregon Silverspot butterfly underway; anticipate concurrence in August 05.
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Application for Nationwide 404 permit anticipated after final environmental document approval.
California Department of Fish and Game	1602 Agreement for Streambed Alteration. Agreement.	Application for 1602 permit anticipated after final environmental document approval.
California Water Resources Board	Water Discharge Permit	Section 401 permit anticipated after final environmental document approval.
County of Del Norte	Local Coastal Permit	Application for Local Coastal permit anticipated after final environmental document approval.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures

This chapter combines a discussion of the environment in which the proposed project is to be built, the potential effects of the proposed project alternatives on that environment, and the measures proposed to avoid, minimize, or mitigate potential impacts.

The environmental impacts presented in this Initial Study are based on technical studies conducted for this highway project. The technical studies prepared for this environmental analysis are listed below and are available for review from Caltrans' North Region Environmental Office at 2389 Gateway Oaks, Suite 100, Sacramento, CA 95833. Please contact Gregoria Ponce Garcia at 916-274-0565 or gregoria_garcia@dot.ca.gov for more information.

Air Quality and Energy Evaluation, December 2004
Community Impact Assessment, May 2005
Floodplain Evaluation, March 2004
Historic Property Survey Report, January 2005
Preliminary Geotechnical Report, March 2005
Hydraulic Analysis and Recommendations, January 2005
Natural Environment Assessment, June 2005
Noise Evaluation, December 2004
Preliminary Site Investigation, February 2005
Traffic Management Plan, March 2005
Visual Impact Assessment, February 2005
Water Quality Report, May 2005

As part of the scoping and environmental analysis conducted for the project, the following environmental resources were considered, but no potential for adverse impacts to these resources was identified. Consequently, there is no further discussion regarding these resources in this document:

- Land Use— minimal conversion of agricultural land for transportation use (Community Impact Assessment 5/2005).

- Wild and Scenic Rivers. No State wild or scenic rivers are found within project area. Existing scenic views maintained through minimal alteration (Landscape studies 2/2005).
- Parks and Recreation. Kampf Memorial Park and other beach access areas will not be affected. Access will be maintained during construction. No long-term or cumulative impacts identified (Community Impacts Assessment 5/2005).
- Growth— The project will not induce substantial population growth, displace substantial numbers of existing housing, or displace substantial numbers of people. No growth is expected from left-turn lane and shoulder construction as proposed work increases safety for existing movements along mainline (Community Impacts Assessment 5/2005).
- Cultural Resources— No cultural resources are affected within project area (HPSR 1/2005).
- Geology/Soils/Seismic/Topography—The project does not expose people or structures to potential substantial adverse effects from rupture of known earthquake faults, strong seismic ground shaking, seismic-related ground failure, or landslides. The project does not result in substantial soil erosion or loss of topsoil. The project is not located on a geologic unit or soil that is unstable or on expansive soil. (Preliminary Geotechnical Report 3/2005).
- Paleontology— no paleontological resources found (HPSR 1/2005).
- Hazardous Waste/Materials— Site Investigation identified no hazardous waste/materials in the area (Supplemental ISA 2/2005).
- Air Quality— No Impact. Project consistent with existing requirements and located in Attainment for all Federal criteria pollutants and falls outside of MPO boundaries. Air Quality Study 4/2005).

- Noise and Vibration—No impact. Project is a non-TYPE I classification. A Type I project is defined by 23 CFR 772 as follows: A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. No further operational noise analysis is required. During the construction phases of the proposed project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans standard specifications Section 7-1.01I, “Sound Control Requirements.” These requirements state that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturer’s specifications (Noise Study 4/2005).

Human Environment

2.1.1 Land Use

The Smith River subarea as defined by the Del Norte County General Plan extends from the Oregon State line southward to the Smith River and from the Pacific Ocean eastward to the Smith River National Recreation Area. The area includes two California Coastal Zone rural market areas, the coastal Ocean View Drive area (from the Ship-A-Shore resort north) and the Smith River area.

Existing and Future Land Use

The community of Smith River is centrally located with older, small lot residential areas, small commercial and light industrial areas, and old mill sites, most of which are vacant. The visitor oriented Ship-A-Shore to Indian Road and Pelican Beach State Park areas are on U.S. Route 101 north of the town. Several rural residential areas are located adjacent to agriculture or timber areas along U.S. Route 101, the Ocean View Drive and Smith River Rancheria areas north of Smith River town and in several foothill areas to its south. While opportunities for additional growth exist in

residential and commercial/industrial areas, the need to balance between development, resource lands, and physical hazards and constraints such as flood plains and hillsides continues.

Regulatory Setting

The Del Norte County General Plan sets the boundaries and land use for the area as prepared by the Del Norte County Community Development Department and approved by the County Board of Supervisors.

Affected Environment

Land uses within the immediate project area consist of Agricultural General, Agricultural Exclusive, Rural Residential Agricultural, Commercial Recreation, Timberland Preserve, and Public Facility Coastal per the Del Norte County General Plan. There are residential subdivisions and frontage road access to the immediate west within the project area. The Gilbert Creek Bridge is located approximately one half-mile south of the northerly project limits. There is a convenience store and gas station and gaming casino at the Indian Drive intersection just south of the project limits on the east side of the highway. Motels, Pelican Bay State Prison, a market, and other commercial outlets are present further south along U.S. Route 101 frontage. Brookings, Oregon lies about six miles north of the California/Oregon border.

Disposal Site: At this time, Caltrans is actively seeking a disposal site for the placement of approximately 15,500 m³ (20,274 yd³) of soil material from the proposed project.

Impacts

Approximately 32 parcels consisting of farmland and residential are expected to be subject to permanent R/W acquisitions. The R/W impacts consist of small “strip takes” along the west and east side of frontage U.S. Route 101 and one full take of an undeveloped parcel within the project limits. Approximately 2.16 ha (5.26 ac) of new R/W is needed to achieve the proposed project.

Avoidance, Minimization and/or Mitigation Measures

The Build Alternative to widen east is designed with additional offsets from approximately KP 71.0 to KP 71.2, to minimize environmental impacts. Additional offsets may occur during the final design stage to further narrow the footprint. Property owners who incur permanent impacts to their property due to project implementation may be subject to compensation as set forth in the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended.

Consistency with State, Regional and Local Plans

This project is included in the 2002 Federal Statewide Transportation Improvement Program (FSTIP) for the 2006/2007 FY and is proposed for funding from the State Highway Operation and Protection Plan (SHOPP). It is also included in the Del Norte County 2002 Regional Transportation Plan (RTP).

A disposal site is currently sought for approximately 15,500 m³ (20,274 yd³) of soil. Continued coordination with the Del Norte County Planning Agency to identify and use a site is expected.

2.1.2 Coastal Zone

Regulatory Setting

The Coastal Zone Management Act of 1972 (CZMA) is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan. California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA; they include the protection and expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, protection of

agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own local coastal programs (LCPs). LCPs determine the short and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals. At this time, Del Norte County has a local coastal program.

Affected Environment

The project area falls in the Coastal Zone and is overseen by the Del Norte Local Coastal Program. A permit from the Local Coastal program is required.

Impacts

Natural vegetation or frontage landscaping, where necessary, will be removed from both sides of the highway due to R/W acquisitions and construction of the left-turn lane and shoulders. No impacts are expected to existing coastal access, views or natural landforms.

Avoidance, Minimization and/or Mitigation Measures

Existing beach access at Kampf Memorial Park shall be maintained throughout the construction period through use of a transportation management plan (TMP). The project will not diminish or remove any existing access to coastal and/or recreational areas. Non-motorized traffic access will be facilitated through use of the paved shoulder. Environmentally sensitive areas adjacent to the project area will be identified and fenced off from entry or use by Caltrans. Additional design offsets to the east have been incorporated to minimize environmental impacts.

2.1.3 Farmlands/Timberlands

Regulatory Setting

The Farmland Protection Policy Act (FPPA, USC 4201-4209; and its regulations, 7 CFR Ch. VI Part 658) require coordination with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. The land does not currently have to be used for cropland. It can be forestland, pastureland, cropland, or other land, but not water or urban developed land.

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

The County General Plan describes the Smith River subarea as agricultural production lands on gently sloped coastal plain, commercial timber production lands in the easterly hills and the County's primary gravel extraction area on the lower Smith River. Land use to the west consists of residential lots, Kampf Memorial Park, and a County resource conservation area just south of the park.

Frontage to the east side of US 101 within the project limits consists of bulb farms, other agriculture land uses, and sparse residential.

Impacts

There is conversion of prime farmland to non-agricultural use. Impacts to farm and agricultural lands per the NRCS and FPPA guidelines are expected to be far less than

significant. The *FPPA Guidelines For Local Public Agency Federal Aid Projects* states, “If the project requires five acres or less of new R/W per mile or per site, the project does not present a significant impact to farmland and submittal of the Farmland Conversion Impact Rating Form (AD-1006) is not required.” Impacted farms are not expected to suffer any loss of area currently being farmed due to project related R/W impacts. Del Norte County does not have farm/agricultural lands that participate in provisions of the Williamson Act.

No indirect conversion of farmland or change of land use in the area is expected. The pattern of development will not be impacted. No inaccessible remainders of parcels will result.

Avoidance, Minimization and/or Mitigation Measures

There will be partial strip takes and one full acquisition due to implementation of the proposed project. No individuals would be displaced. Property owners who incur permanent impacts to their property due to implementation of the proposed project may be subject to compensation as set forth in the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended.

2.1.4 Community Impacts

No substantial impacts to property tax revenues or current land use patterns are expected. Project construction is expected to occur over two consecutive “summer seasons.” One lane is expected to be open while construction is actively in progress. Access to side streets and driveways is expected to remain open within the project limits during construction. Construction noise and dust would temporarily impact the residents of the homes adjacent to the project. The implementation of Caltrans’ Standard Specifications will reduce noise and dust impacts to less than significant levels.

No permanent adverse impacts to access are expected. Long-term impact will be improved safety as well as enhanced circulation and access points within the project limit. No cumulative impacts are identified.

2.1.5 Community Character and Cohesion

Regulatory Setting

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The project segment lies in the northern end U.S. Route 101 leading to the California/Oregon border. The Smith River subarea as defined by the Del Norte General Plan extends from the Oregon State line southward to the Smith River and from the Pacific Ocean eastward to the Smith River National Recreation Area. The area includes two California Coastal Zone rural market areas, the coastal Ocean View Drive area (from the Ship A Shore resort north) and the Smith River area. Resource recreation activities serving both residents and visitors currently emphasize marine and river activities such as boating, fishing, beachcombing, hiking rafting and hunting.

Impacts

The project does not physically divide an established community, conflict with any applicable land use plan, policy, or regulation, conflict with any applicable habitat or natural community conservation plan, nor would there be an adverse impact to the character or cohesion of a neighborhood.

Avoidance, Minimization and/or Mitigation Measures

A public workshop was held early in the project study phase in July 2001. Another public meeting is scheduled to occur on July 21, 2005 to discuss citizen's concerns, the decision making process, the schedule, project design features, impacts and mitigation measures (see Chapter 3).

2.1.6 Utilities/Emergency Services

The utility companies involved or affected are GTE, Pacific Power & Light Co., Falcon Cable TV, and Smith River Community Services District (waterline).

Emergency Services include law enforcement, fire, and medical.

Affected Environment

The Smith River Community Services District's main waterline travels along the east side of U.S. Route 101 from the south end of the project. At the RV Park, the waterline encroaches in Caltrans R/W. There is a "T" connection to the Reservation Ranch subdivision. The waterline crosses under the highway at the County Park and travels along the west side north of Gilbert Creek. The main line again crosses the highway north of Gilbert Creek and continues northerly on the east side of the road.

Additionally, there are electrical, telephone and cable poles along both sides of the highway.

Impacts

The types of facilities and agreements required include aerial electrical, telephone and cable on wooden poles, buried telephone cables, waterlines and fire hydrants.

Ground disturbance within the project footprint will occur as a result of utility relocation. Temporary impacts include delayed traffic due to traffic controls and construction equipment movement during utility relocation. Long-term impacts include relocated utilities. No other long-term impacts or cumulative impacts identified.

Avoidance, Minimization and/or Mitigation Measures

A TMP will be implemented to address circulation of existing motorized and non-motorized traffic and facilitate movement of law enforcement, fire, other emergency services, and County school transportation that could be affected by the project. Additionally, access to side roads, and residences shall be maintained at all times. Measures include, but are not limited to, signage, noticing to public and emergency services of detour paths and work periods prior to lane detours. The relocation of power, telephone, cable, and water lines will be done in a manner to avoid disruption of services. The relocation of utilities will be carried out in close coordination between service providers, and Caltrans to ensure minimal impacts.

2.1.7 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

U.S. Route 101 is used for the transportation of intercity/interstate commerce and recreation, and is a mainline of the north coast connecting rural areas to and through urban centers. Caltrans is interested in upgrading shoulders in the project area to better accommodate existing non-motorized traffic. Discussion has been on-going in many communities regarding the development of alternate parallel routes that would be safer and more attractive to both cyclists and pedestrians.

Affected Environment

Most of U.S. Route 101 from the intersection of Highway 1 at Leggett in Mendocino County to the California/Oregon State Line is legislatively designated as the “Pacific Coast Bike Route.” Within the project area, the facility is a two-lane conventional highway with little or no paved shoulders. There are no sidewalks or other pedestrian facilities in the project area, and no pedestrian facilities are planned. Del Norte County has proposed bicycle facilities on this segment on a case-by-case basis. However, currently there are no bicycle facilities. Shoulders on U.S. Route 101 are relatively narrow in some locations, and not well suited to non-motorized traffic. There are very limited turning or passing opportunities within the project area.

Impacts

During construction, all traffic (motorized and non-motorized) will be limited to movement under the proposed TMP. Long-term impacts will be that the widened roadway will accommodate existing bike and pedestrian traffic. Widening of the highway will improve sight distance for traffic on U.S. Route 101 and for vehicles entering the road from adjacent driveways and streets. The additional shoulder widening will improve visibility of existing bicyclists and pedestrians by passing motorists.

Avoidance, Minimization and/or Mitigation Measures

A TMP will be implemented to address circulation of traffic and facilitate movement of law enforcement, fire, other emergency services, and County school transportation that could be affected by the project. A minimum of one lane and shoulder shall remain open for traffic at all times. Additionally, access to side roads and residences shall be maintained at all times. These measure include, but are not limited to, signage, advance flaggers, noticing to public and emergency services of detour paths and work periods prior to lane detours.

2.1.8 Visual/Aesthetics

The visual environment is predominantly rural residential with small commercial and agricultural activity common within the roadway view shed between Crescent City and Brookings, Oregon. Views of the Pacific Ocean are common in the middle and background and residential development in the foreground. The Klamath Range is visible to the east in the background. The topography is relatively flat with a small road cut located north and south of the Gilbert Creek Bridge at Post Mile 45.33. The Pacific coastline is less than 600-m (1,967-ft) to the west and views of the ocean are common from the project limits.

Regulatory Setting

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

Affected Environment

The visual environment is predominantly rural residential with agricultural fields (flower bulb farms) and rural residential properties visible in the foreground and middleground to the east and west. The Pacific Ocean is the most dominant element visible in the middle and background to the west. This section of U.S. Route 101 is narrow with minimal shoulders compared to the sections of existing roadway to the north and south. Land use within the view shed is predominantly rural residential interspersed with small flower bulb farms and small businesses. The Lucky 7 Casino is located at the southern limits of work. Vegetation coverage is mostly residential landscaping and agricultural fields although there are some riparian woodlands adjacent to Gilbert Creek, and wetlands are found where the water table reaches the ground surface.

Although the section of U.S. Route 101 between Crescent City and the Oregon border has not been designated as a scenic highway, it has been found 'eligible' for scenic highway status in the California Scenic Highway System. Improvements to the highway infrastructure should attempt to protect or enhance the visual integrity of the U.S. Route 101 corridor in the region.

Impacts

Visual impacts created by this project will be low to moderate. Impacts to residential properties include driveways, fences, hedges, and landscaping. Widening of the roadway may bring views of the roadway closer to some residences. Impacts will be greater for residential and commercial buildings located within 10-m (30-ft) of the proposed edge of pavement line. Riparian woodlands and wetlands within the existing R/W line will also be impacted. Although most of the project area has flat

topography, cut slopes north and south of the Gilbert Creek Bridge will be cut further back into the hillside. The new cut slopes will be 1:2 or flatter. The project will bring the highway facility to the same width and consistency as the sections of existing roadway to the north and south.

Avoidance, Minimization and/or Mitigation Measures

The following measures will be taken to minimize visual impacts and improve the visual quality of the highway within the project area. They are as follows:

- Impacts to existing vegetation within the proposed Caltrans' R/W will be minimized where possible.
- Removed or affected yard appurtenances such as fencing, landscaping, and mailboxes will be replaced in kind or the landowners shall be compensated as part of the mitigation. Driveways will be perpetuated.

The project landscape architect will be contacted during design phase of NPDES/stormwater features. Impacted riparian vegetation will be replaced in kind, as appropriate.

Physical Environment

2.1.9 Hydrology and Floodplain

The local groundwater basin identified in the North Coast Basin Plan is the Winchuck River Hydrologic Unit (101.00). The existing or potential beneficial uses are Municipal and domestic supply *, agricultural supply*, industrial service supply*, industrial process supply*, freshwater replenishment, hydropower generation, water contact recreation, non-contact water recreation, commercial and sport fishing, and cold freshwater habitat, wildlife habitat, migration of aquatic organisms, spawning, reproduction, and/or early development, and aquaculture.

Regulatory Setting

The 100-year floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment

* = ground waters or surface waters

is defined as “an action within the limits of the 100-year floodplain.” Floodplain areas are defined and designated by the Federal Emergency Management Agency (FEMA) via use of Flood Insurance Rate Map (FIRM).

The County of Del Norte also recognizes that floodplains have unique and significant public values, including wildlife habitat or recreational, aesthetic and scientific value, open space, and groundwater recharge and control effects through the Land Use policies of their General Plan.

Affected Environment

The project is located in the Smith River watershed that encompasses the far northwest region of Del Norte County. The watershed extends from western slopes of the Coastal Range to the coastline where it enters the Pacific Ocean. The major streams within the project area that flow directly into the Pacific Ocean are Gilbert Creek and Lopez Creek. As identified in the FEMA FIRM, community panel #065625 0025 B, dated January 24, 1983, the work areas along the mainline, except Gilbert Creek and Lopez Creek areas, are outside FEMA defined floodplain boundaries. Both Gilbert Creek and Lopez Creek are identified as being within Zone A Floodplains (100-year).

There are approximately 11 drainage facilities within the project. Type location and proposed treatments are as follows:

Location/Type	Current Condition	Treatment
PM 43.75/ Reinforced concrete box (RCB)	Inlet channel and culvert not well aligned resulting in inlet flow to redirect prior to entry. Under high flow conditions, culvert may result in too high velocity for adult fish passage	Remove existing RCB and place on a new proper alignment for fish passage improvement
PM 43.82/ Corrugated steel pipe (CSP)	Adequate condition.	No treatments proposed
PM 44.20/ Reinforced concrete pipe (RCP)	Discontinuous joints need replacement	Replace with larger pipe with concrete head and endwalls.
PM 44.38/ Corrugated Steel pipe	Culvert coating worn and underlying steel is rusted.	Extend pipe, install pipe liner, headwall and endwalls
PM 44.42/RCP	Invert may have minor separation or spalling	Extend, place new head and end walls, grout joints and spalling repair
PM 44.69/CSP	No major deficiencies. Void between liner and pipe	Extend, install liner, and replace end treatments
PM 45.25/CSP	Nearby facility found.	No treatments proposed
PM 45.67/CSP	Lacks bituminous protection otherwise good condition. Outlet waters flow in a small channel for 10m to coastal bluff where it then drops 10m to the beach. Bluff experienced noticeable erosion.	Any proposed treatments at this time will be done within the existing R/W.
PM 45.75/CSP	Liner does not extend to outlet. Pipe is perforated and in poor conditions	Extend, replace liner, and install headwall and place rock energy dissipaters (RED) at the outlet
PM 45.84/CSP	Bituminous coating is worn and the invert is rusted and in need of repair.	Extend, install liner, headwall, endwall, and add light gradation RED.
PM 45.50/	Runoff and sediment overwhelm facility due to low spot.	Increase capacity and remove sag.

Drainage Facilities

Note that FEMA delegate's responsibility for oversight and approval of floodplain encroachment to the Local Agency who is receiving federal flood insurance for its inhabitants. For this project, the County of Del Norte is the Local Agency.

Impacts

No work will be conducted to the bridges. There is no proposed work at Gilbert Creek (PM 45.3) that would encroach near the defined floodplain, and therefore, there will be no impacts upon floodplain water surface elevations at this location.

Temporary impacts consist of working in the creek bed at the inlet and outlet of the culvert that conveys the creeks' waters during the dry period. Permanent impacts to flows at Lopez Creek are no increased backwater effects due to increased culvert capacity at that culvert than currently exists. Based on floodplain analysis, no significant impacts upon floodplain water surface elevations are expected.

In general, all private driveway culverts, where feasible, will be upgraded/replaced with culverts that have a diameter of no less than what currently exists or 600-mm (23.4 inches), whichever is greater. No long-term or cumulative impacts are identified.

Avoidance, Minimization and/or Mitigation Measures

No activities are planned in the 100-year floodplain therefore avoidance, minimization and/or mitigation measures are not necessary. There may be minimization measures implemented during the permitting process.

2.1.10 Water Quality and Stormwater Runoff

The project area is situated on a narrow coastal plain where heavy rain and fog is common. Precipitation averages 80 to 100 inches (203 –254 cm) per year, with the majority occurring during the rainy season (October 1st to May 1st). Generally the climate is moderate and foggy, and temperature variation is not great.

Located in the Winchuck River watershed, this area encompasses the far northwest region of Del Norte County. The watershed extends from western slopes of the Coastal Range to the coastline where it enters the Pacific Ocean. The major streams

within the project area that flow directly into the Pacific Ocean are Gilbert Creek and Lopez Creek.

Regulatory Setting

The primary federal law regulating Water Quality is the Clean Water Act. Section 401 of the Act requires a water quality certification from the State Board or Regional Board when a project: 1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Caltrans projects), and 2) will result in a discharge to waters of the United States.

Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Clean Water Act Section 402, the State Water Resources Control Board (SWRCB) has issued a NPDES Statewide Storm Water Permit to regulate storm water discharges from Caltrans facilities. The permit regulates storm water discharges from Caltrans R/W both during and after construction, as well as from existing facilities and operations.

In addition, the SWRCB has issued a construction general permit for most construction activities covering greater than 1 acre (0.40 ha), that are part of a Common Plan of Development exceeding 5 acres (2.02 ha) or that have the potential to significantly impair water quality. Some construction activities may require an individual construction permit. All Caltrans projects that are subject to the construction general permit require a Storm Water Pollution Prevention Plan (SWPPP), while all other projects require a Water Pollution Control Program (WPCP). Subject to Caltrans' review and approval, the contractor prepares both the SWPPP and the WPCP. The WPCP and SWPPP identify construction activities that may cause pollutants in storm water and measures to control these pollutants. Since neither the WPCP nor the SWPPP are prepared at this time, the following discussion focuses on anticipated pollution controls.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act and Pollution Prevention Act. State water quality laws are codified in the California Water Code.

Affected Environment

Located in the Winchuck River watershed, this area encompasses the far northwest region of Del Norte County. The watershed extends from western slopes of the Coastal Range to the coastline where it enters the Pacific Ocean. The major streams within the project area that flow directly into the Pacific Ocean are Gilbert Creek and Lopez Creek.

Impacts

The project requires removal of vegetation, relocation of utilities, and widening of lanes and shoulders. During and immediately following construction there would be exposed soils that increase the potential for erosion during project construction. Erosion impacts can be lessened through appropriate construction management practices and construction timing. The main water quality impact along the entire project limits is due to an agricultural drainage into Caltrans' R/W at postmile 45.27, which is located just south of Gilbert Creek Bridge.

Permanent impacts from storm water runoff are that the impermeable area within the project will be increased because of the widening and lane addition, however the additional storm water runoff should have negligible effects, both in terms of quantity and quality. Long-term impact is modified drainage inlets such that it has capacity to convey runoff without exceeding spread limits and cresting the roadway.

Avoidance, Minimization and/or Mitigation Measures

Section 7-1.01G of Caltrans' Standard Specifications outlines the provisions that the Contractor must follow to eliminate or reduce the adverse impacts of construction activities on the water quality. Some of these provisions are as follows:

1. Where working areas encroach on live streams, barriers adequate to prevent the flow of muddy water into streams shall be constructed and maintained between working areas and streams, and during construction of the barriers, muddying of streams shall be held to a minimum.
2. Should the Contractor's operations require transportation of materials across live streams, the operations shall be conducted without muddying the stream. Mechanized equipment shall not be operated in the stream channels of the live streams except as may be necessary to construct crossings or barriers and fills at channel changes.
3. Water containing mud or silt from aggregate washing or other operations shall be treated by filtration, or retention in a settling pond, or ponds adequate to prevent muddy water from entering live streams.
4. Oily or greasy substances originating from the Contractor's operations shall not be allowed to enter or be placed where they will later enter a live stream.
5. Portland cement or fresh Portland cement concrete shall not be allowed to enter flowing water of streams.
6. Material derived from roadway work shall not be deposited in a live stream channel where it could be washed away by high stream flows.
7. Where there is possible migration of anadromous fish in streams affected by construction on the project, the contractor shall conduct work operations so as to allow free passage of the migratory fish.

The Contractor must also comply with Army Corps of Engineer (ACOE) permit, California Department of Fish and Game (DFG) permit, and North Coast Regional Water Quality Control Board (NCRWQCB) water quality specifications.

Biological Environment

2.1.11 Natural Communities

The surrounding natural communities are consistent with maritime influences such as perennial grasslands, namely coastal prairies, riverine environments, and coastal bluff terrace/saltspray meadows.

Regulatory Setting

This section of the document discusses natural habitats and species present in the U.S. Route 101 project area.

Affected Environment

The project is located in the Northern Coast Range, and the elevation of the project ranges from 40 to 70 feet above sea level within the Smith River 7.5- minute USGS quadrangle, T 18 N R 11 W Section 5. The area has scattered development containing residential housing, businesses, agricultural and grasslands throughout the project limits. The project is located approximately 16 miles north of the city of Crescent City, 4.6 miles north of the town of Smith River, and 0.5 miles south of the Oregon border. This area has sparse woody vegetation except in a few riparian areas, and the terrain is fairly level throughout the project limits. There are several locations for beach access along the project limits including Kamph Memorial Park, which contains trails, a stream, and day and overnight parking.

Habitats

Perennial grasslands

Perennial grassland habitats occur in two forms in California: coastal prairies, found in areas of northern California under maritime influence, and relics in the valley grasslands now dominated by annual grasses and forbs. Perennial grassland habitats are dominated by perennial grass species such as California oatgrass, Pacific hairgrass and sweet vernalgrass. On northern sites near the ocean in Del Norte and Humboldt Counties, common species include California oatgrass, American dunegrass, goldfields, Kentucky bluegrass, and western bracken fern. Structure in perennial grassland habitat is dependent upon the mix of plant species at any particular site. Grazing by domestic livestock or wild herbivores such as Roosevelt elk can substantially alter habitat structure through reduction in plant height and removal of biomass. On the north coast, perennial grassland habitat may occasionally be found on Ultisol soil type which formerly supported Douglas fir habitats, but which have been cleared by man.

Riverine

Lopez Creek, and two other unnamed streams within the project boundaries exhibit characteristics of a riverine environment. The riverine habitat includes the following structural classes:

- Open Water (greater than 2 meters in depth and or beyond the depth of floating rooted plants, and does not involve substrate)
- Submerged zone (between open water and shore)
- Shore (seldom flooded with less than 10% canopy cover)

Riverine habitats can occur in association with many terrestrial habitats, and are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats.

The open water zones of large rivers provide resting and escape cover for many species of waterfowl. Near-shore waters provide food for waterfowl, herons, shorebirds, and many other insectivorous birds.

Coastal Bluff Terrace/Saltspray Meadow

The term coastal bluff refers to the entire slope between a marine terrace or upland area and the sea. Main coastal bluffs in California are composed of more than one type of material, commonly a poorly consolidated marine terrace overlying a better consolidated sedimentary bedrock. The bluff shape reflects the relative roles of surficial, marine, and ground water erosion acting on the materials making up the bluff. Saltspray meadows contain vegetation capable of thriving in a saline environment.

2.1.12 Wetlands and Other Waters

Regulatory Setting

Wetlands and waters at the State level are regulated primarily by the Department of Fish and Game (DFG) and the Regional Water Quality Control Boards (RWQCB). In

certain circumstances, the Coastal Commission or County Local Coastal Program may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify DFG before beginning construction. If DFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The top of the stream or lake banks, or the outer edge of riparian vegetation usually defines DFG jurisdictional limits, whichever is wider. Wetlands under jurisdiction of the federal Army Corps of Engineers (ACOE) may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the DFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

Within the project area, wetlands may be found adjacent to the creeks, sporadically along either side of the roadway, and other minor drainage ways. Wetlands were delineated using the routine on-site determination method outlined in the U.S. Army Corps of Engineers' (ACOE's) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The County Local Coastal Program has a one parameter approach to wetlands whereby any area which contains either vegetation, hydrology or soils characteristic to wetlands will be considered a coastal zone wetland (CZW). Many of the ditches within the proposed project limits meet the criteria for a CZW either by presence of wetland vegetation (slough sedge or blackberry bushes) or standing water but no wetland soils. Wetland delineation and mapping can be found in Appendix G of the Natural Environment Study.

Three streams exhibit characteristics of bed and bank within the project as defined by the DFG and are Lopez Creek PM 43.75, unnamed stream which flows through the culvert at PM 44.72 at Kamph Memorial Park, and a small unnamed stream at PM 45.75.

Impacts

The proposed project contains several ditches, which exhibit characteristics of seasonal, freshwater wetlands. These wetlands were identified and delineated according to the current Army Corps of Engineers (ACOE) wetland delineation. The wetlands have little to no functions and values for wildlife or waterfowl, and contain no riparian vegetation or woody vegetation; however they are considered jurisdictional wetlands as defined by the ACOE and the Clean Water Act. Those wetlands not meeting the ACOE three parameter criteria were labeled as coastal zone wetlands (CZW). The proposed project contains several ditches, which meet the criteria of coastal zone wetlands. These CZWs have low functions and values, containing mostly Himalayan and California blackberry, Ag grass, and slough sedge and in most cases the soils were too gravelly to support the vegetation and hydrology necessary for an ACOE wetland.

Total Acres Impacted (Estimated)

CZW Permanent	CZW Temporary	ACOE Permanent	ACOE Temporary	CZW Total	ACOE Total
0.38	0.03	0.2	0.0049	0.41	.2049

Wetlands Table

Avoidance, Minimization and/or Mitigation Measures

Temporary impacts will be avoided by placing orange barrier fencing around wetlands where no work is anticipated. A Caltrans biological monitor will be present for the placement of that fencing and periodic visits will be made to monitor work. In addition, construction will be done during the summer months when ditches are dry.

Due to the relatively low quality of the wetlands within the proposed project vicinity, new drainage ditches could function as mitigation onsite at a 1.5:1 ratio.

Hydrological integrity, vegetation and nutrients will not change and hydrologic components will be maintained during construction to avoid additional impacts to adjacent wetlands. New wetland ditches will be created within a month of being filled in and will be done during the dry season. Wetland ditches recreated will be larger (in most cases) than existing ditches, and will contain berms or checkdams to slow the water velocity and maintain wetland vegetation. New ditches will be constructed at a 2:1 slope with a 1-m (3-ft) flat bottom with a maximum of 1-m (3-ft). It is likely that the new ditches will recreate themselves within one season.

Any additional mitigation that cannot be recreated on-site will be mitigated at a 2:1 ratio at an offsite mitigation area (possibly the Washington Blvd. mitigation area) with a higher functions and values than the current wetlands provide. A Mitigation and Monitoring Plan will be provided to the Local Coastal Program and the Army Corps of Engineers prior to the permitting process which detail success rates, monitoring time-lines and reporting criteria.

Any work within the bed and bank of the streams will require a 1602 Stream Alteration Agreement and be conducted during periods of low flow. All streams with bed and bank will be restored to their prior condition or better, and any vegetation removed during construction will be replaced at a 3:1 ratio.

2.1.13 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (DFG) share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of

protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA).

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and CEQA, Public Resources Code, Sections 2100-21177.

Special-status species and their habitats were selected for analysis based on information from DFG, USFWS and field surveys conducted for the proposed action. Special emphasis through research and surveys was placed on special-status and protected plant species and were identified as having the potential to occur in the project area.

Affected Environment

The following plants are typical of the area.

Plant List

SPECIES	SPECIES
Alder (red)	Sword fern
Coyote bush	Oregon grape
Velvet grass	Western dog violet (<i>Viola adunca</i>)
Needle grass	Coastal sagewort
Cascara	Hedge nettle*
Strawberry	<i>Astragalus</i> sp.
Foxglove	California blackberry
Wild cucumber	Horsetail
Scotch broom	Yarrow
Salal	Clover*
Vetch*	Plantain*
Bull thistle	Curly Dock
Bracken fern	Lupine*
Himalaya berry	Iris*
Disturbed perennial grassland*	
*unable to identify sp. due to vegetative condition – not blooming	

Listed plant species, or species with special consideration

Siskiyou Checkerbloom (*Sidalcea malviflora* ssp. *Patula*)

The Siskiyou checkerbloom is a California Native Plant Society (CNPS) list 1B species that is being considered for federal listing and is a candidate for state listing in Oregon. Its preferred habitat includes coastal bluff scrub, coastal prairie and North Coast coniferous forest. The blooming period is from May to June but can vary from year to year depending on climatic conditions in the area. It is known to occur in California in fewer than 10 occurrences and fewer than three in Oregon. Of those 10 occurrences in California, only 1 known occurrence is documented in Del Norte County.

Presence on the Project Site

Surveys were performed on the project site from PM 43.7-45.9, within the current and proposed R/W. Siskiyou checkerbloom were documented throughout the project area with the highest concentrations occurring on the western side of U.S. Route 101 from PM 44.3-44.7 (40-90% densities). Occurrences were also documented further north on the western portion of the project from PM 44.75-45.15 (30% – 80 % densities).

To the east (north bound Highway 101[NB]) scattered occurrences of the checkerbloom were documented beginning at PM 43.8 to PM 44.15 (densities range from 5% to 40%). Checkerbloom were also documented (NB) in higher concentrations from 44.5 to 44.9 (5-60% densities) with only a few plants documented further north to the projects terminus. There appears to be an increase in cover of checkerbloom in recent years within the projects R/W. It is thought that the mowing that occurs outside of the blooming period helps facilitate the growth of the checkerbloom.

Sand-dune phacelia (*Phacelia argentea*)

This plant is the only known phacelia to grow on coastal sand dunes. It grows on the immediate coastal dunes from northern Del Norte County in California to southern Coos County in Oregon. Its habitat is reduced by the encroachment of non-native European beachgrass, development and coastal recreation (from the *Center for Plant Conservation website*). The sand-dune phacelia has a Global Rank (G-Rank which reflects the overall condition of an element throughout its global range) of G2, which is either 1,000-3,000 individuals or 2,000-10,000 acres exists. It is also a federal species of concern and a California state rank S1.1 (very threatened or less than 1,000 acres or less than 2,000 acres exists).

Presence on the Project Site

The sand-dune phacelia has been documented on the coastal dunes to the south of the Kamph Memorial Park, however there is no habitat within the project limits and no impacts are expected.

Impacts

The Build Alternative could result in impacts to a portion of the Siskiyou checkerbloom population that exists within the project limits. It is estimated that the entire square footage of the project area that is vegetated (less the Gilbert Creek Bridge Project) totals approximately 900,000 square feet. Surveys for the checkerbloom showed that the entire checkerbloom population within Caltrans existing (and proposed, if habitat existed) R/W totaled roughly 94,514 square feet (10.5% of the entire project area) and of that population, 18,334 square feet (19.4 %) may be affected by the currently proposed Build Alternative. Due to the large population of checkerbloom south west of Kamph Memorial Park, avoidance of this area will decrease impacts substantially.

Avoidance, Minimization and/or Mitigation Measures

Siskiyou checkerbloom will be avoided whenever possible by limiting impacts on the western segment of U.S. Route 101 where the highest concentration of the plants exists. Mitigation proposed for this plant will include a special mowing program during the blooming period, which helps to further enhance the species by decreasing competition.

ESA signs are already in place for the Siskiyou checkerbloom on the west side of U.S. Route 101 for approximately .5 a mile at PM 44.3 - 44.7. The sensitive area signs will be extended from PM 43.0 thru 45.3 on both sides of the highway. An additional area which contains the Siskiyou checkerbloom at the far northern end of the project near PM 45.6 will have an ESA sign erected and a special mowing period as well. Numbers of Siskiyou checkerbloom appear to have increased dramatically since the mowing program within Caltrans' R/W was initiated.

The mowing periods for the extended checkerbloom population will begin immediately. Currently mowing can take place between August and December, and from January through March for blades 12" or higher (weed eater) with limited herbicide use.

To further decrease impacts, the first 6 to 8 inches of topsoil will be removed from the area with a high concentration of Siskiyou checkerbloom (stations 28 + 50 to 30 + 80) and transplanted within the new R/W in the same general location. Soil transplanting will be combined with seed dispersal to further facilitate the success of the transplant. Seed collection and topsoil transplant are both considered experimental mitigation/conservation measures for this species since the outcome is uncertain. Monitoring will be performed for 3 years prior to construction and reports (submitted to DFG) will include number of plants or percent cover within soil transplant area, re-sprouting descriptions, and photographs. Due to the lack of transplant history, success or failure will not be implied by this report.

Areas where no impacts are expected to occur but that contain checkerbloom will be fenced off with orange barrier fencing placed prior to construction. A package containing information and pictures of the Siskiyou checkerbloom will be provided in the resident engineer file and crews will be educated on identification and the necessity to avoid that species. Periodic monitoring will be made by a Caltrans biologist to ensure fencing is properly erected and all required specifications are met.

2.1.14 Animal Species

Regulatory Setting

Special-status species and their habitats were selected for analysis based on information from DFG, USFWS, and field surveys conducted for the proposed action. The listing status, preferred habitat, and potential to occur in the project at the project site are listed in Appendix E.

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

Special emphasis through research and surveys was placed on the below special-status and protected animal species and were identified as having the potential to occur in the project area.

2.1.15 Listed animal species, or species with special consideration

Oregon silverspot butterfly (*Speyeria zerene hippolyta*)

The Oregon silverspot butterfly (OSB) was declared a federally threatened species on July 2, 1980. It's native range spreads from Washington State down to Northern California but currently it is known to occur only at a few sites on the central Oregon

coast and at one site in Washington state. Populations are small and isolated within grassland habitats, sand dunes, and coastal strand communities along the coastline. Emergence of the adults begins in mid-August, and the flight extends through September. One factor that severely restricts its population is that its preferred food plant during its larval stages of development, the early blue or dog violet (*Viola adunca*), is now disappearing as its habitat is taken up by development. Other factors that may be responsible for its decline include housing development and increased recreational use of the coastal areas to which it is restricted.

Presence on the Project Site

The Oregon Silverspot Butterfly Species Recovery Plan identifies the area just south of Kamph Memorial Park and west of U.S. Route 101 as part of the Del Norte County Habitat Conservation Area. The California Natural Diversity Database shows occurrences of the OSB in several locations north of Crescent City, including one from 1990 within the area known as Reservation Ranch, south west of Kamph Memorial Park. This could have been one of only three possible populations of the butterfly in California. This area is proposed for development of 15 ocean front lots (Twin Rocks Subdivision). Independent consultants for the Two Rock Road Development Project conducted surveys in July, August and September of 1990. Results of that survey indicated no occurrence of the Oregon silverspot butterfly. According to that document, the Oregon silverspot butterfly's host plant, the dog violet (*viola adunca*), was present in abundance in the northern most portion of the north field (east of Kamph Memorial Park), but no plant occurrence in the south field were documented. Currently the only potential habitat which exists within the project limits are between PM 44.35 – 44.7, where dog violets have been surveyed and found both within and outside of Caltrans R/W. While the Reservation Ranch area was walked on several occasions by a Caltrans biologist during the butterflies flight period, and dog violets were present (2004), no Oregon silverspot butterflies were observed.

Impacts

Oregon silverspot butterfly

A small patch of the OSB's host plant (dog violet) was observed in May 2005 on the east side of U.S. Route 101 near station 25 + 60. The area containing the dog violet was approximately 3m² and contained 6-10 individual blooms. This area may be impacted as a result of this project. Due to the low density and lack of connectivity to larger plant populations outside of the right of way, they are not likely to be suitable to support reproductive efforts of the butterfly. A request for concurrence from the USFWS was sent out on June 2, 2005 and concurrence is anticipated in July or August 2005.

Anadromous Fish

The existing culvert at Lopez Creek has been identified and studied by Humboldt State University students as an obstruction to migrating anadromous fish under higher flow conditions to adult migrating fish. The placement of a new cross-culvert on proper alignment requires work in Lopez Creek. A positive impact is that the improved culvert will be installed and embedded below grade to allow natural substrate to propagate through the entire culvert length thereby creating natural flow conditions and allow fish passage. The approximate size of the new culvert will be 3000-mm wide by 2400-mm tall (117-in x 94-in). In addition, the replacement of the roadway overside drain in a different location to allow roadway runoff to filter through vegetation prior to flowing into Lopez Creek is suggested. The new culvert will be passable in a 100-year event.

Avoidance, Minimization and/or Mitigation Measures

To avoid the existing dog violets (OSB host plant), widening will occur to the east, where the smallest percentage was documented. Additionally, orange barrier fencing will be placed along the R/W fence from PM 43.3 to 44.7 where the potential OSB

habitat and the dog violets are documented. This site will be intermittently monitored through construction by a Caltrans biologist.

Impacts to fish will be avoided by working during low flow periods (June – October) and outside of adult salmonid migration (generally June 15th - Oct. 15th). Diversion methods will be done in a manner to not cause harm to any aquatic life, such as ponding upstream (with a suggested .125- inch mesh screen) and pumping downstream with flex hose. A Caltrans biologist will be onsite for the initial diversion and periodically throughout the culvert replacement to ensure no harm to fish. The culvert replacement should take 2-4 weeks to complete.

Construction Impacts

Temporary construction impacts to noise, air quality, traffic, and drainages are expected.

Noise: Noise generated during construction will be controlled as the contractor conforms to the provisions of Caltrans' Standard Specifications, Section 7-1.01I, "Sound Control Requirements." This section requires the contractor to comply with all local sound control and noise level rules, regulations and ordinances that apply to any work performed pursuant to the contract.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the recommended muffler.

Air Quality: During construction, the proposed project will generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust (fugitive dust) generated during excavation, grading, hauling, and various other activities. The impacts from these

activities would vary each day as construction progresses and according to the proximity of the receptors to the construction activities. Dust and odors could annoy nearby businesses and residents.

Caltrans' Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction. The provisions of Caltrans' Standard Specifications, Section 7-1.01F, "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with all North Coast Unified Air Quality Management District (AQMD) and other local jurisdictions' rules, regulations, ordinances, and statutes.

Traffic: Traffic delays will result from construction. To reduce impacts, a traffic management plan will be implemented during construction.

Drainages: Work within drainages should occur under dry conditions or the use of a temporary water diversion or sediment basin will be employed. Temporary erosion control fencing will be placed prior to any ground disturbing activities. The erosion control fencing will be placed down slope of construction activities and above streams or wetlands. Temporary fencing will be maintained in functional condition until ground disturbance activities are completed and/or permanent erosion control measures are in place.

Biological Resources: To prevent accidental impacts to biological resources that are outside the work area, Environmentally Sensitive Areas (ESAs) will be delineated in the design plans (Appendix D). The boundary of the work area and ESAs indicated on the project plans will be established as the first order of work prior to clearing, grubbing, or grading activities. The ESAs will be identified at the project site with the use of temporary high visibility fencing and maintained until the completion of work. The ESAs are to be off limits to any work including vehicle parking, equipment storage, grading, trenching, vegetation alteration, fill, and stockpiling of any material.

Hazardous Waste: Unknown hazardous materials discovered during construction activities may delay construction and project delivery. Hazardous waste that is unknown until exposed during construction will require sampling and testing prior to removal from the site and disposal. Should any hazardous waste be discovered during the course of work, all work will stop and all materials will be disposed of in accordance with all laws, rules, and regulations governing hazardous waste including naturally occurring asbestos.

Cumulative Impacts

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. This cumulative impact assessment examines the collective impacts posed by individual projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from the construction of new public services in the project area. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

Growth

The section of U.S. Route 101 within the project area is located in the unincorporated area of Del Norte County in the Smith River Planning Subarea. This part of the county extends from the Oregon state line southward to the Smith River and from the Pacific Ocean to the Klamath Range. Immediately south of Kampf Memorial Park is an area proposed for development of 15 ocean front lots (Twin Rocks Subdivision). This area is becoming urbanized, with new residential subdivisions being planned within the project area. However, since this is a safety project that does not increase the capacity of U.S Route 101, the project would not make a cumulatively considerable contribution to growth.

Caltrans is also developing a non-capacity increasing project that proposes to widen shoulders and improve railings on the Gilbert Creek and Smith River Overflow Bridges (EA 01-29313) and would not make a cumulatively considerable contribution to growth.

Chapter 3 **Comments and Coordination**

COORDINATION

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. This chapter summarizes the results of Caltrans' efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

During the preparation of this study, several agencies and community organizations were contacted. A list of contacts include:

Coordination and Consultation for Biology

California Department of Fish and Game	U.S. Fish and Wildlife Service
Del Norte County Planning Office	California Coastal Commission
Del Norte County Local Coastal Program	Federal Highway Administration

Coordination and Consultation for Community Impacts

Del Norte County Planning and Community Development Department
Natural Resources Conservation Service

Coordination and Consultation for Cultural Resources



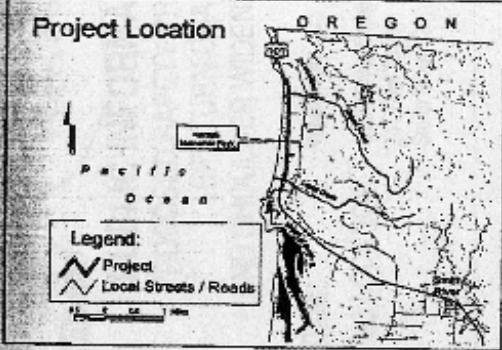
Del Norte County Historical Society	Redwood National and State Parks
Native American Heritage Commission	

Local Native American representatives included:

Blue Lake Rancheria	Smith River Rancheria of California
Tolowa Nation	Elk Valley Rancheria of Smith River
Melochundum Band of Tolowa Indians	

Public Involvement

A public workshop was held early in the project development phase in July 2001 and publicly noticed in the Daily Triplicate on June 28, 2001. Another public meeting is scheduled for July 21, 2005 at the Smith River Community Hall in Smith River to discuss citizen's concerns, the decision making process, the schedule, project design features, impacts and mitigation measures.



Public Notice

Public Informational Meeting

Announcement

Proposed Left Turn

Channelization and

Shoulder Widening

What is being planned? Caltrans is proposing safety improvements in Del Norte County on Route 101, north of the town of Smith River, from 43.6 to 45.8 miles north of the Humboldt/Del Norte County line. The proposed work will include left turn channelization, improving sight distance (vertical curve correction), drainage rehabilitation, and shoulder widening.

The proposed work may include:

- Acquiring strips of property from owners adjacent to the highway.
- Moving mailboxes, fences, utility poles away from the traffic lanes.
- Reconstructing and/or paving driveways.
- Potential retaining wall on the west side at post mile 45.4/45.5.
- Overlaying the existing pavement with open grade asphalt-concrete to improve driving during wet weather conditions.

Why this project: The purpose of this project is to enhance traffic safety. The five-year collision history (8/94 - 8/99) indicates that there have been 20 collisions in this segment including three fatal and six injury collisions. Seven of these collisions can be attributed to left turn maneuvers, with four of the seven occurring at the Kamph Memorial Park entrance. Seven other collisions are attributed to loss of control and vehicles running off the road. To reduce these types of collisions, left turn channelization and shoulder widening are being proposed.

You are invited: To an "Open House" style Public Meeting to view, discuss, and comment on the proposed project on Wednesday, July 11, 2001 from 4:00 PM to 7:00 PM. The meeting will be held at the Smith River Community hall, 241 First Street, Smith River, CA. There will be no formal presentation. Caltrans staff will be available to explain the project and answer questions.

Why this notice? This notice is to advise you of the meeting, and to invite you to view the displays, to discuss and to comment on the project. Caltrans is very interested in public opinion to decide if this project should be pursued. No commitment of funding has occurred.

Contact: For more information about this project, please call Brett Johnson at (707) 445-5207 for engineering questions or Deborah Harmon, (707) 445-6416 for environmental questions. If you are unable to attend and wish to provide written comments, please submit them no later than August 1, 2001 to CALTRANS District 1, Post Office Box 3700, Eureka, CA 95502-3700, Attention: Brett Johnson.

Individuals who require special accommodation (American Sign Language interpreter, accessible seating, documentation in alternate formats, etc.) are requested to contact the District 1 Public Affairs Office at (707) 445-6444. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.

7-20028

Chapter 4 List of Preparers

This Initial Study was prepared by the following Caltrans North Region staff:

Andy Agustinovich, Associate Transportation Planner, B.S., Sociology, Master's Public Administration Hayward State University; 16 years with the Department, 8 years professional social research experience.

Amy Kennedy, Associate Biologist, B.A., Humboldt State University; 5 years of biological experience with the Department, 2 years fisheries experience with USFWS.

Gregoria Ponce Garcia, Associate Environmental Planner. B.S., Environmental Biology/Natural Resources Management, University of California- Davis; 11 years of varied experience in Environmental Compliance.

Hamid Hakim, Transportation Engineer. Ph.D., Anaerobic Microbiology, Ohio State University; M.S., Environmental Engineering, in progress, California State University, Sacramento; 13 years experience in water quality studies.

Sebastian Cohen, PE, Transportation Engineer. B.S., Environmental Resources Engineering, Humboldt State University, California State University; 6 years experience in civil engineering.

Steve Werner, Engineering Geologist, M.S., Geology, California State University Fresno; 20 years experience in hazardous waste and engineering geology studies.

Jim Hibbert, Landscape Associate. B.L.A. Landscape Architecture, University of Oregon; B.A. Geography, University of Alaska-Fairbanks; 5 years experience in writing visual impacts assessments.

Richard V. Olson, Associate Archeologist. BA, History/American Studies, California Statue University, Chico; 25 years of varied experience throughout California and Nevada.

Ben Tam, Transportation Engineer, B.S., Civil Engineering San Jose State University; 15 years Caltrans experience, 7 years noise experience.

Sharon Tang, Air/Noise Specialist, A.A. Sacramento City College, Sacramento, CA; Five years experience in preparing and reviewing Air/Noise Studies for environmental documents.

Kathy Gallagher, Transportation Engineer, Humboldt State University, B.S., Environmental Resources Engineering; 9 years experience in civil and environmental engineering.

Curtis D. Coburn, Transportation Engineer, B.S., Environmental Resources Engineering, Humboldt State University. Twelve years experience in Consulting Engineering and Transportation Engineering.

Chapter 5 Distribution List

Agencies

Local:

County of Del Norte Community Development Department
County of Del Norte
 Director of Community Development
 County Engineer
 Emergency Services
 Road Division Superintendent
 County Agricultural Department

Crescent City Chamber of Commerce
Del Norte Local Transportation Commission

State:

California Department of Fish and Game
North Coast Regional Water Quality Control Board
California Highway Patrol

Libraries:

Del Norte County Library, Crescent City Branch
Del Norte County Library, Smith River Branch
Crescent City Community Library

Other:

District 3 County Supervisor, Chuck Blackburn
Assembly District 1, Patty Burg
Senate District 4, Sam Aanestad
Congress, District 1, Mike Thompson